



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,233	12/31/2001	Herve Cassagnes	01RO11554371	7300
27975 7590 04/24/2007 ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A. 1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE P.O. BOX 3791 ORLANDO, FL 32802-3791			EXAMINER PHU, PHUONG M	
			ART UNIT	PAPER NUMBER
			2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

sk

# Office Action Summary

Application No.

10/039,233

Applicant(s)

CASSAGNES, HERVE

Examiner

Phuong Phu

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13,16-24,26-30 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13,16,18-20,22-24,26,27,29,30,32,33 and 35 is/are rejected.
- 7) ☒ Claim(s) 17,21,28 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is responsive to the RCE filed on 3/14/07 and the Amendment filed on 2/14/07. Accordingly, claims 13, 16-24, 26-30 and 32-35 are currently pending; and claims 1-12, 14, 15, 25 and 31 are canceled.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "The decoding circuit of claim 15". It is unclear which decoding circuit that claim 16 refers to because claim 15 is a canceled claim.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 13, 16, 19-20, 23, 24, 26, 27, 30, 32 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiramatsu (5,778,031), previously cited.

-Regarding to claims 13 and 30, see figures 5-7 and col. 4, line 34 to col. 8, line 24, Hiramatsu discloses a method and associated system (see figure 5) for decoding a biphasic signal comprising:

Art Unit: 2611

register step/means (31) of precharging the states (half bit data) “a0”, ..., “a5” of a biphasic signal (a), one state of the pair of states being precharged at each pulse of a periodic precharging signal (c) (see also figure 7); and

verification step/means of comprising device (32), under operation “EXNOR”, of comparing the two states of the pair of states, e.g., (a0, a1), to detect a discrimination between the two states, (the discrimination considered here equivalent with the limitation “error”), and providing a detection signal, (considered here equivalent with the limitation “error signal”), based upon detecting the discrimination, e.g. providing a detection signal “1” if (a0) and (a1) being equal, or namely if (a0) and (a1) being the same, (see col. 6, lines 49-55), wherein the detection signal “1” inherently indicates that the two states (a0, a1) are not a correct/accurate pair being received for decoding, or namely are inherently not received accurately for decoding, and therefore are not selected by means (39, 50, 8, 9, 10) for decoding since a correct/accurate pair (a0, a1) for decoding must have the two states (a0, a1) different from each other for representing a bi-phase signal (see col. 1, lines 15-18, col. 6, line 49 to col. 7, line 60), (the procedure of providing the detection signal “1” considered here equivalent with the limitation “providing an error signal when the two states are equal indicating that they have not been received accurately”).

-Regarding to claim 32, Hiramatsu discloses that pair of states represent a value (see figure 6(a)), and wherein said verification also provides a decoded signal (Bi-PHASE SIGNAL DECODED OUTPUT) indicating the value of the precharged pair states (see figure 5).

-Regarding to claims 16 and 33, Hiramatsu discloses a storage circuit (12) (see figure 5) for storing the decoded signal at each pulse of a periodic validation signal (n), the periodic

Art Unit: 2611

validation signal having a period equal to twice the period the periodic precharging signal (c )  
(see also figure 7).

-Claim 19 is rejected with similar reasons set forth for claim 13.

-Claim 20 is rejected with similar reasons set forth for claim 16.

-Claim 23 is rejected with similar reasons set forth for claim 13. Further regarding to claim 23, Hiramatsu discloses transmission and reception circuitry (figure 5) comprising a circuit (1) for sending biphasic signals to a receiving circuitry (circuits shown in figure 5 excluding circuit (1)).

-Regarding to claim 24, Hiramatsu discloses that biphasic signals are encoded according to a protocol (see col. 1, lines 19-40).

-Claim 26 is rejected with similar reasons set forth for claim 15.

-Claim 27 is rejected with similar reasons set forth for claim 16.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 18, 22, 29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiramatsu in view of Okada et al (6,175,542), previously cited.

-Regarding to claims 18, 22, 29 and 35, Hiramatsu does not disclose that the biphasic signal is filtered prior to being precharged.

Okada et al teaches using a filter (98, 100) for filtering a received coded signal to be decoded so that noise in the received coded signal is reduced or eliminated by the filtering (see figures 7 and 12, and col. 8, lines 18-35).

It would have been obvious for one skilled in the art to implement in Hiramatsu invention a filter, as taught by Okada et al, in such a way that the filter would filter the biphasic signal from noise before the biphasic signal being precharged to be further decoded so that distortions, which are caused by the noise and may affect the performance of the decoding process, would be avoided.

***Allowable Subject Matter***

8. Claims 17, 21, 28 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

9. Applicant's arguments filed on 2/14/07 have been fully considered but they are not persuasive.

The applicant mainly argues that Hiramatsu does not teach a verification circuit which compares the states of a pair of states to detect an error and provides an error signal when the two states are equal indicating that they have not been received accurately.

The examiner respectfully disagrees. As explained for the rejection to claims 13 and 30 set forth in this Office Action, Hiramatsu teaches a verification circuit comprising device (32) (see figure 5), which compares the states of a pair of states to detect an error and provides an error signal when the two states are equal indicating that they have not been received accurately.


Art Unit: 2611

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Phuong Phu  
04/12/07

**PHUONG PHU**  
**PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2611